

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all previous listing of claims.

**Listing of Claims:**

1. (Currently Amended)     ~~A pre-expanded~~ Pre-expanded beads of olefin-modified ~~polystyrene-based styrene-modified polyolefin-based~~ resin comprising ~~[[a]]~~ pre-expanded beads of a ~~polystyrene-based polyolefin-based~~ resin modified with a ~~polyolefin-based polystyrene-based~~ resin, wherein a styrene-based monomer forming a polystyrene-based resin in the beads is used in the range of ~~100~~ 120 to 1,000 parts by weight relative to 100 parts by weight of a polyolefin-based resin, a bulk density of each bead is 0.012 to 0.20 g/cm<sup>3</sup>, and an absorbance ratio at 698 cm<sup>-1</sup> and 2850 cm<sup>-1</sup> ( $D_{698}/D_{2850}$ ) obtained from an infrared absorption spectrum of each bead surface measured by ATR method infrared spectroscopy is in the range of 0.1 to 2.5.
2. (Currently Amended)     ~~A pre-expanded~~ Pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 1, wherein the absorbance ratio is in the range of 0.4 to 2.0.
3. (Currently Amended)     ~~A pre-expanded~~ Pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 1, wherein the bulk density is 0.014 to 0.15 g/cm<sup>3</sup>.

4. (Currently Amended)      ~~A pre-expanded~~ Pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 1, wherein the polyolefin-based resin exists in a surface of the pre-expanded bead more than its central part.

5. (Currently Amended)      ~~A pre-expanded~~ Pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 1, wherein a "z" average molecular weight of the polystyrene-based resin measured with GPC is in the range of 350,000 to 1,100,000.

6. (Currently Amended)      ~~A pre-expanded~~ Pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 1, wherein the polyolefin-based resin is a branched low-density polyethylene, linear low-density polyethylene or ethylene-vinyl acetate copolymer, and the polystyrene-based resin is a polystyrene resin.

7. (Currently Amended)      A method for producing pre-expanded beads of ~~olefin-~~  
~~modified polystyrene-based~~ styrene-modified polyolefin-based resin comprising the steps  
of:

(a) polymerizing a styrene-based monomer (~~100~~ 120 to 1,000 parts by weight relative to 100 parts by weight of polyolefin-based resin beads to be used) while impregnating polyolefin-based resin beads with the styrene-based monomer, in the presence of a polymerization initiator in an aqueous medium in which the polyolefin-based resin beads are dispersed, to obtain the ~~olefin-modified polystyrene-based~~ styrene-modified polyolefin-based resin beads,

(b) impregnating the resin beads with a blowing agent, and

(c) pre-expanding the resin beads impregnated the blowing agent to obtain the pre-expanded beads of olefin-modified polystyrene-based resin,

wherein in the step (a), the aqueous medium is stirred at a power required for stirring of 0.06 to 0.8 kw/m<sup>3</sup>, and impregnation and polymerization of the styrene-based monomer are performed under a condition where a styrene-based monomer content in the polyolefin-based resin beads is 35% by weight or less;

and wherein in the step (a), the polymerization initiator is added at 0.02 to 2.0% by weight of a total amount of the polyolefin-based resin beads to be used and the styrene-based monomer until an amount of the styrene-based monomer to be used reaches 40 to 90% by weight of the total amount of the styrene-based monomer to be used, and then a styrene-based monomer containing no polymerization initiator is added.

8. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein, in the step (a), the polymerization initiator is added at 0.02 to 2.0% by weight of a total amount of the polyolefin-based resin beads to be used and the styrene-based monomer until an amount of the styrene-based monomer to be used reaches 90% by weight of a total amount of the styrene-based monomer to be used.

9. (Cancelled)

10. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to ~~Claim 9~~ Claim 7, wherein, an amount of the

styrene-based monomer containing no polymerization initiator is 10 to 60% by weight of a total amount of a styrene-based monomer to be used.

11. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein a polymerization of the styrene-based monomer is conducted in the range of  $-30$  to  $+10^{\circ}\text{C}$  of a melting point of the polyolefin-based resin.

12. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein the polyolefin-based resin beads are beads of a branched low-density polyethylene, linear low-density polyethylene or ethylene-vinyl acetate copolymer, and the polystyrene-based monomer is a styrene monomer.

13. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein the power required for stirring is in the range of  $0.08$  to  $0.7 \text{ kw/m}^3$ .

14. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein the impregnation and polymerization of a styrene-based monomer are performed so that a content of the styrene-based monomer in the polyolefin-based resin bead is in the range  $0$  to  $30\%$  by weight.

15. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein the step (b) is performed under stirring with a paddle-type stirring wing.

16. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein a total amount of the styrene-based monomer to be used is in the range of 130 to 700 parts by weight relative to 100 parts by weight of the polyolefin-based resin beads.

17. (Original)           A method for producing pre-expanded beads of olefin-modified polystyrene-based resin according to Claim 7, wherein the styrene-based monomer contains a crosslinking agent.

18. (Original)           An expanded molded article obtained by charging the pre-expanded beads of olefin-modified polystyrene-based resin of Claim 1 into a mold, followed by expansion molding.

19. (Original)           An expanded molded article according to Claim 18 using as a vehicle cushioning material.